

WHAT IS CLAIMED IS:

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1. A data reproducing method for reproducing data corresponding to a state-transition pass selected as being most likely according to a Viterbi decoding algorithm from a reproduction  
10 signal supplied from a recording medium, the method comprising the steps of:

detecting at least one state of said reproduction signal according to data used for selecting said state-transition pass;

15 calculating an average value of said reproduction signal in said state detected by said step of detecting; and

following a fluctuation amount of a direct current component of said reproduction signal  
20 according to said average value.

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2. The data reproducing method as claimed in claim 1, wherein said step of detecting includes the steps of:

outputting data supplied to a pass memory of a Viterbi detector as said data used for

30 selecting said state-transition pass; and

producing a state signal indicating said state according to said data used for selecting said state-transition pass.

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3. The data reproducing method as claimed in claim 2, wherein said step of calculating includes the steps of:

- judging said state according to said state  
5 signal; and  
calculating the average value of said reproduction signal in said state judged by said step of judging.

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4. The data reproducing method as claimed in claim 1, wherein said step of following includes  
15 the steps of:

- determining at least one expected value according to said average value, the expected value being used in said Viterbi decoding algorithm; and  
supplying said expected value to a Viterbi  
20 detector.

5. The data reproducing method as claimed in claim 1, wherein said step of following includes the step of:

- adjusting the fluctuation amount of the direct current component according to said average  
30 value.

6. The data reproducing method as claimed in claim 1, wherein said state is one of a peak portion, a center portion and a bottom portion of

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said reproduction signal.

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7. A data reproducing device for reproducing data corresponding to a state-transition pass selected as being most likely according to a Viterbi decoding algorithm from a reproduction signal supplied from a recording medium, the device comprising:

a condition detector detecting at least one state of said reproduction signal according to data used for selecting said state-transition pass;

15 an average circuit calculating an average value of said reproduction signal in said state detected by said condition detector; and

a follower following a fluctuation amount of a direct current component of said reproduction signal according to said average value.

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25 8. The data reproducing device as claimed in claim 7, wherein said condition detector is supplied with data supplied to a pass memory of a Viterbi detector as said data used for selecting said state-transition pass so as to produce a state signal indicating said state according to said data used for selecting said state-transition pass.

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9. The data reproducing device as claimed in claim 8, wherein said average circuit judges said

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state according to said state signal so as to calculate the average value of said reproduction signal in said state.

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10. The data reproducing device as claimed in claim 7, wherein said follower determines at least one expected value according to said average value, the expected value being used in said Viterbi decoding algorithm, so as to supply said expected value to a Viterbi detector.

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11. The data reproducing device as claimed in claim 7, wherein said follower adjusts the fluctuation amount of the direct current component according to said average value.

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12. The data reproducing device as claimed in claim 7, wherein said state is one of a peak portion, a center portion and a bottom portion of said reproduction signal.

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13. A magneto-optical disk device for reproducing data according to a state-transition pass selected as being most likely according to a Viterbi decoding algorithm from a reproduction

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signal supplied from a recording medium having data recorded according to a partial-response waveform, the device comprising:

- a condition detector detecting at least
- 5 one state of said reproduction signal according to data used for selecting said state-transition pass, the data being supplied from a Viterbi detector;
- an average circuit calculating an average value of said reproduction signal in said state
- 10 detected by said condition detector; and
- a follower following a fluctuation amount of a direct current component of said reproduction signal according to said average value.

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